## REMARKS/ARGUMENTS

Claims 20-27 stand rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The Examiner maintains that these claims contain subject matter which is not adequately described in the specification.

Claims 1-3, 8-11, and 16-19 stand rejected under 35 U.S.C. 103(a) as being unpatentable over United States Patent Application Publication No. 2001/0048447) by Jogo ("Jogo") in view of United States Patent No. 5,798,752 to Buxton et al. ("Buxton et al.").

The Examiner has objected to Claims 4-7 and 12-15 as being dependent upon a rejected base claim, but would allow these claims if rewritten in independent form including all of the limitations of the base claim and any intervening claims. The Applicant thanks the Examiner accordingly.

In view of the Examiner's comments with respect to Claims 4-7, Claim 1 has been amended to include the limitations of Claims 2-4, as suggested by the Examiner. Claims 2-4 have been cancelled accordingly. In addition, Claim 5 has been amended to make it depend from amended Claim 1 rather than from cancelled Claim 4. Having amended Claim 1 to include the limitations of Claims 2-4, the Applicant believes that Claim 1 is patentable. In addition, the Applicant believes that Claims 5-8 and 17-19, being dependent on amended Claim 1, and adding patentable features thereto, are also patentable.

In view of the Examiner's comments with respect to Claims 12-15, Claim 9 has been amended to include the limitations of Claims 10-12, as suggested by the Examiner. Claims 10-12 have been cancelled accordingly. In addition, Claim 13 has been amended to make it depend from amended Claim 9 rather than from cancelled Claim 12. Having amended Claim 9 to include the limitations of Claims 10-12, the Applicant believes that Claim 9 is patentable. In addition, the Applicant believes that Claims 13-16, being dependent on amended Claim 9, and adding patentable features thereto, are also patentable.

With respect to Claims 20-27, the Applicant respectfully submits that these claims fully comply with the written description requirement under 35 U.S.C. 112, first paragraph. These claims contain

subject matter which is fully and adequately described in the specification. For reference, previously presented Claims 20 and 24 recite the following:

> 20. (Previously Presented) A method for cropping a computer generated original image on a display, comprising:
>
> adjusting a user-selected movable boundary on said original image to define a cropped image within said boundary, said boundary defined by two or more points on said original image; and,
>
> distorting said original image in respective regions surrounding said points to produce a distorted image by displacing said original image onto a lens for each region and perspectively projecting said displacing onto a plane in a direction aligned with a viewpoint for said region, whereby said boundary is accurately positioned for cropping.

> 24. (Previously Presented) A method for measuring within a computer generated original image on a display, comprising:
>
> adjusting a user-selected movable line segment on said original image to define points on said original image for measuring between; and,
>
> distorting said original image in respective regions surrounding said points to produce a distorted image by displacing said original image onto a lens for each region and perspectively projecting said displacing onto a plane in a direction aligned with a viewpoint for said region, whereby said points are accurately positioned for measuring.

With respect to the claim limitation "distorting said original image in respective regions surrounding said points to produce a distorted image...whereby said boundary is accurately positioned for cropping" in Claim 20, this claim limitation is fully supported by FIGS. 5-6 and paragraphs 0067-0068 and 0073 of the present application as published (or the third paragraph on page 19 to the second paragraph on page 20 and the fourth paragraph on page 21 of the application as filed) which recite the following:

"[0067] FIG. 5 is a screen capture illustrating a presentation **500** having two detail-in-context lenses **510, 511** and associated GUIs **501, 502** for defining the corners of a bounding rectangle GUI for cropping an original digital image or representation in accordance with an embodiment of the invention. In FIG. 5, the original image to be cropped is a map of North America. In order to produce a cropped image showing that portion of the United States from Washington State to Florida, for example, a user defines a first lens **510** over Washington State using a first GUI **501** and a second lens **511** over Florida using a second GUI **502**. The lenses **510, 511** may be introduced to the original image to form the illustrated presentation through the use of a pull-down menu selection, tool bar icon, etc. The lenses **510, 511** are positioned at what will be the top left and bottom right corners of a bounding rectangle that will be used to define the cropped image. Using lens control elements for each GUI **501, 502**, such as move, pickup, resize base, resize focus, fold, and magnify as described above, the user adjusts each lens **510, 511** to accurately select a point or corner for the creation of a bounding rectangle for cropping. Each selected point may be indicated on in the presentation with a crosshairs icon **450**, for example. Using the magnify lens control element, for example, the user may magnify the focal region **520, 521** of each lens **510, 511** to pixel quality resolution making it easy to view, for example, the point where the boarders of Washington State and Canada meet in the first lens **510** and the point where land ends at the coast of Florida in the second lens **511**."

"[0068] FIG. 6 is a screen capture illustrating a presentation **600** having detail-in-context lenses **510, 511**, associated GUIs **501, 502**, and a bounding rectangle GUI or icon **610** for cropping an original digital image or representation to produce a cropped image **640** in accordance with an embodiment of the invention. Once the lenses **510, 511** are in place, the user may use an existing tool to crop the presentation **600** to produce a cropped image **640**. In FIG. 6, the user has defined an area with a bounding rectangle GUI **610**. The bounding rectangle GUI **610**, defining an area for the cropped image **640**, may also be displaced or distorted by the lenses **510, 511**, however, in FIG. 6, this is not shown. The resultant cropped image **640** may be presented with or without lens distortions **510, 511**."

"[0073] Advantageously, by using detail-in-context lenses **510, 511** to select points **620, 630** defining an area for a cropped image **640**, a user can view a large area **600** (i.e. outside the

lenses **510**, **511**) while focusing in on smaller areas **520**, **521** (i.e. inside the focal regions **520**, **521** of the lenses **510**, **511**) surrounding the selected points **620**, **630**. This makes it possible for a user to perform accurate cropping without losing visibility or context of the portion of the original image surrounding the cropped area **640**."

The underlined sections in the above paragraphs provide the necessary support for the claim limitation. Note that the presentation **500** (or **600**) is clearly the "distorted image" of the claim limitation.

With respect to the claim limitation "distorting said original image in respective regions surrounding said points to produce a distorted image...whereby said points are accurately positioned for measuring" in Claim 24, this claim limitation is fully supported by FIGS. 7-8 and paragraph 0078 of the present application as published (or the third paragraph on page 23 of the application as filed) which recites the following:

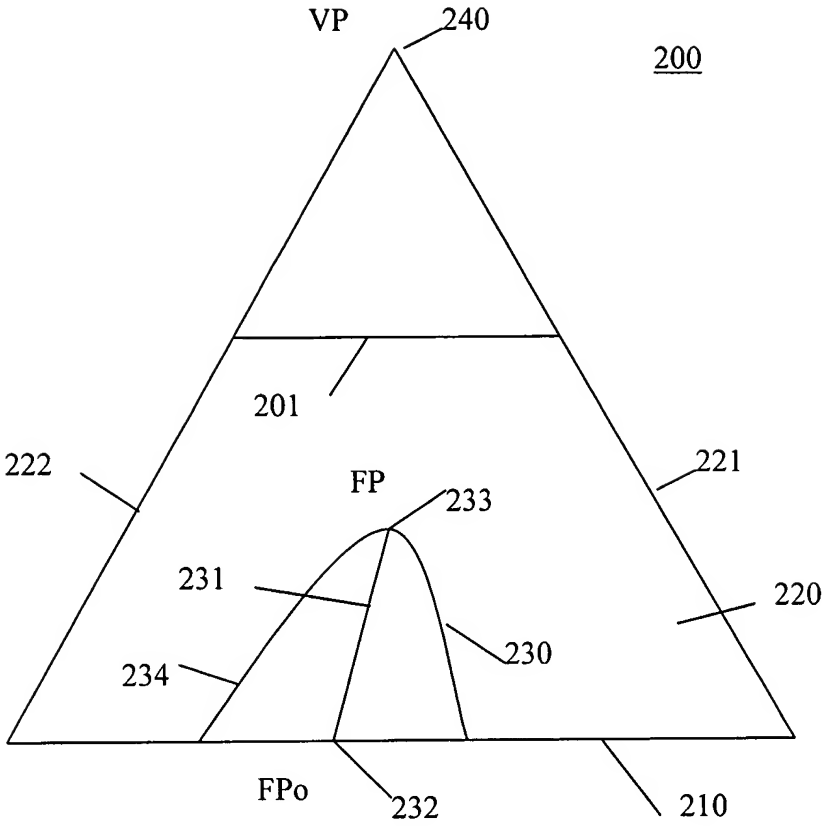
"...In addition to performing cropping operations, measuring distances between points in a presentation can be performed with greater accuracy by using detail-in-context lenses. FIG. 7 is a screen capture illustrating a presentation **700** having detail-in-context lenses **710**, **711** and associated GUIs **701**, **702** for selecting points between which to measure in an original digital image or representation in accordance with an embodiment of the invention. To make a measurement between two points in an original digital image, a user first adds detail-in-context lenses **710**, **711** to the original image to create a detail-in-context presentation **700**. The lens **710**, **711** enable the user to view high resolution data in the focus of each lens. The lenses are positioned over selected points **750**, **760** and configured as described above. To aid the user in placing the lenses **710**, **711**, a scale icon **720** may be included in the presentation **700**. FIG. 8 is a screen capture illustrating a presentation **800** having two detail-in-context lenses **710**, **711**, associated GUIs **701**, **702**, and a measuring tool GUI **810**, **820** for displaying the measurement between selected points **750**, **760** in an original digital image or representation in accordance with an embodiment of the invention. After selecting points **750**, **760**, the user may select a measuring tool to determine the distance between the points **750**, **760**. The measuring tool may be selected using a pull-down menu selection, tool bar, etc. In FIGS. 7 and 8, the points **750**, **760** have been selected at the towns of Terrace and

> Victoria, British Columbia, respectively. The measuring tool may present a measuring tool GUI which may include a measured value icon **820** for displaying the measured value or distance between the selected points **750, 760** and a line segment icon **810** for displaying the measurement path between the selected points **750, 760** to a user. Advantageously, because the selected points **750, 760** are contained within the focal region of each lens **710, 711** which may be displayed at a higher resolution that the surrounding presentation **800**, the measured value may be determined more accurately. In FIG. 8, the distance between Terrace and Victoria has a measure value **820** of **734, 771** meters."

The underlined sections in the above paragraph provide the necessary support for the claim limitation. Note that the presentation **700** (or **800**) is clearly the "distorted image" of the claim limitation.

With respect to the claim limitation "by displacing said original image onto a lens for each region and perspectively projecting said displacing onto a plane in a direction aligned with a viewpoint for said region" in each of Claims 20 and 24, this claim limitation is fully supported by FIG. 2 (which is reproduced below) and paragraph 0045 of the present application as published (or the third paragraph on page 9 of the application as filed) which recites the following:

> "...Undistorted 2D data points are located in a basal plane **210** of a 3D perspective viewing volume or frustum **220** which is defined by extreme rays **221** and **222** and the basal plane **210**. The VP **240** is generally located above the centre point of the basal plane **210** and reference view plane ("RVP") **201**. Points in the basal plane **210** are displaced upward onto a distorted surface **230** which is defined by a general 3D distortion function (i.e. a detail-in-context distortion basis function). The direction of the viewer-aligned perspective projection corresponding to the distorted surface **230** is indicated by the line FPo-FP **231** drawn from a point FPo **232** in the basal plane **210** through the point FP **233** which corresponds to the focus or focal region or focal point of the distorted surface **230**."




The underlined sections in the above paragraph provide the necessary support for the claim limitation. Note that the undistorted points in the basal plane **210** are clearly the "original image" of the claim limitation, the distorted surface **230** is clearly the "lens" of the claim limitation, the reference view plane **201** is clearly the "plane" of the claim limitation, the viewpoint VP **240** is clearly the "viewpoint" of the claim limitation, and the direction of line FPo-FP **231** is clearly the "direction" of the claim limitation.

Accordingly, the Applicant believes that Claims 20-27 fully comply with the written description requirement under 35 U.S.C. 112, first paragraph, and that these claims contain subject matter which is fully and adequately described in the specification. The Applicant further believes that Claims 20-27 are patentable over the Jogo and Buxton et al. references.

Please note that Claims 2-4 and 10-12 have been cancelled without prejudice in order to expedite prosecution of this application. The Applicant reserves the right to pursue these cancelled claims in a continuing application or otherwise.

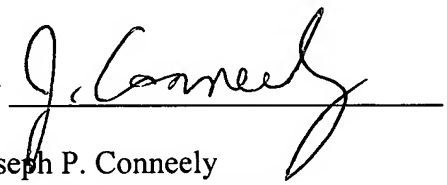
No new matter has been entered by these amendments.

The Applicant respectfully requests that a timely Notice of Allowance be issued in this case.

Respectfully submitted,

McCarthy Tétrault LLP

Date: February 20, 2005

By 

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